Scientific Atlanta

# Connecting the Explorer® 3250™ Digital Home Communications Terminal

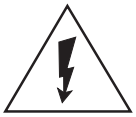
# Notice for CATV Installers

## Notice for CATV Installers

If you are a CATV installer, read the information in the box below.

**Note to CATV System Installer (USA/Canada Only)**

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC (Section 54, Part I of the Canadian Electrical Code), that provides guidelines for proper grounding and, in particular, specifies that the CATV cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



This symbol is intended to alert you that uninsulated voltage within this product may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this product.

CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

**WARNING**

**TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**

This symbol is intended to alert you of the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

# U. S. Patents

A patent notice is affixed to this product. In addition, the product may also be covered by one or more of the following patents:

4,636,852; 4,641,181; 4,651,208; 4,691,353; 4,698,598; 4,719,642; 4,748,667; 4,829,569; 4,866,770; 4,885,775; 4,888,799; 4,890,319; 4,922,532; 4,965,534; 5,012,510; 5,029,207; 5,045,816; 5,053,883; 5,058,160; 5,142,690; 5,146,526; 5,214,390; 5,225,902; 5,225,925; 5,237,610; 5,239,540; 5,241,610; 5,255,086; 5,257,403; 5,267,071; 5,270,809; 5,271,041; 5,272,752; 5,282,028; 5,285,497; 5,287,351; 5,309,514; 5,319,709; 5,341,425; 5,347,388; 5,347,389; 5,361,156; 5,367,571; 5,379,141; 5,379,145; 5,381,481; 5,390,337; 5,400,401; 5,406,558; 5,418,782; 5,428,404; 5,430,568; 5,434,610; 5,436,749; 5,442,472; 5,455,570; 5,471,492; 5,477,199; 5,477,370; 5,481,389; 5,485,221; 5,493,339; 5,500,758; 5,502,499; 5,506,904; 5,519,780; 5,550,825; 5,579,055; 5,579,057; 5,583,562; 5,596,606; 5,600,378; 5,602,933; 5,640,388; 5,657,414; 5,675,575; 5,715,515; 5,724,525; 5,740,300; 5,742,677; 5,754,940; 5,757,416; 5,771,064; 5,774,859; 5,825,829; 5,826,167; 5,850,305; 5,854,703; 5,870,474; 5,892,607; 5,920,626; 5,923,755; 5,930,024; 5,930,515; 5,937,067; 5,963,352; 5,966,163; 5,982,424; 5,991,139; 5,999,207; 6,005,631; 6,005,938; 6,016,163; 6,028,941; 6,029,046; 6,052,384; 6,055,244; 6,072,532; 6,105,134; 6,148,039; 6,157,719; 6,188,729; 6,195,389; 6,212,278; 6,215,530; 6,219,358; 6,240,103; 6,243,145; 6,246,767; 6,252,964; 6,272,226; 6,292,081; 6,292,568; 6,320,131; 6,374,275; 6,405,239; 6,411,602; 6,417,949; 6,424,714; 6,424,717; 6,433,906; 6,438,139; 6,463,586; 6,467,091; 6,476,878; 6,493,876; 6,510,519; 6,516,002; 6,516,412; 6,526,508; 6,538,595; 6,546,013; 6,560,340; 6,567,118; 6,570,888; 6,622,308; 6,629,227; 6,664,984; 6,667,994; 6,671,879; 6,674,967; 6,678,891; 6,714,598; 6,721,352; 6,721,956; 6,725,459; 6,738,982; 6,744,892; 6,744,967; 6,751,271; 6,760,918; 6,795,972; 6,802,077; 6,804,708; 6,811,447; 6,817,028; D348065; D354959; D359737; D363932; D390217; D434753; RE36988

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# IMPORTANT SAFETY INSTRUCTIONS

## Heed Warnings

Adhere to all warnings on the product and in the operating instructions.

## Read, Retain, and Follow These Instructions

Read all of the instructions before you operate this product. Follow all operating instructions that accompany this product. Retain the instructions for future use. Give particular attention to all safety precautions.

## Comply With Warnings

Avoid electric shock. Comply with all warnings and cautions in the operating instructions, as well as those that are affixed to this product.

## Power Warnings

### Providing a Power Source

A label on this product indicates the correct power source for this product. Operate this product only from an electrical outlet with the voltage and frequency indicated on the product label.

If you are uncertain of the type of power supply to your home or business, consult your cable service provider or your local power company.

### Grounding This Product (USA/Canada Only)

**WARNING: To avoid electric shock and fire hazard, match the plug and outlet connections carefully, then fully insert. If the plug and outlet do not match, or you cannot fully insert the plug, contact an electrician to update your power outlets.**

This product is equipped with either a three-prong (grounding pin) safety plug or a two-prong (polarized) safety plug. To properly ground this product, follow these safety guidelines:

- For a 3-prong plug (one prong on this plug is a protective grounding pin), insert the plug into a grounded mains, 3-prong outlet.

  **Note**: This plug fits only one way. If you are unable to insert this plug fully into the outlet, contact your electrician to replace your obsolete outlet.

- For a 2-prong plug (a polarized plug with one wide blade and one narrow blade), insert the plug into a polarized mains, 2-prong outlet in which one socket is wider than the other.

  **Note**: If you are unable to insert this plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact an electrician to replace your obsolete outlet.

### Overloading

**WARNING: Avoid electric shock and fire hazard! Do not overload mains AC outlets and extension cords. For products that require battery power or other power sources to operate them, refer to the operating instructions for those products.**

Do not overload electrical outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock. For products that require battery power or other sources to operate, refer to the operating instructions for that product.

### Preventing Power Cord Damage

Arrange all power cords so that people or pets cannot walk on the cords. Do not place objects on the cords. Do not lean objects against the cords. Placing objects on or leaning objects against cords can damage the cords. Give particular attention to cords at the point at which the cord connects to plugs, at the electrical outlets, and where the cords exit the product.

## Usage Warnings

### Providing Ventilation

This product has openings for ventilation that protect it from overheating. To ensure the reliability of this product, do the following:

- Do not block or cover these openings.
- Do not place entertainment devices (such as VCRs or DVDs), lamps, books, vases with liquids, or other objects on top of this product.
- Do not place this product in any of the following locations:
  - On a bed, sofa, rug, or similar surface
  - Near heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat
  - In an enclosure, such as a bookcase or rack, unless the installation provides proper ventilation

### Selecting a Proper Location

**WARNING: Avoid personal injury and damage to this product! An unstable surface may cause this product to fall.**

Place this product in a location that is close enough to an electrical outlet and where the power cord is easily accessible to be disconnected from the wall outlet or from the rear panel of the product.

**Important**: The power cord is the mains power supply disconnect device.

Place this product on a stable surface. The surface must support the size and weight of this product.

### Cleaning This Product

**WARNING: Avoid electric shock! Unplug this product before cleaning.**

Before cleaning this product, unplug it from the electrical outlet. Use a damp cloth to clean this product. Do not use a liquid cleaner or an aerosol cleaner. Do not use a magnetic/static cleaning device (dust remover) to clean this product.

### Protecting This Product From Foreign Objects and Water or Moisture Damage

**WARNING: Avoid electric shock and fire hazard! Never push objects through the openings in this product. Foreign objects can cause electrical shorts that can result in electric shock or fire. Do not expose this product to rain or moisture. Do not place objects filled with liquid, such as vases, on this product.**

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock.

Do not expose this product to liquids or moisture. Do not place this product on a wet surface. Do not spill liquids on or near this product.

Do not use this product near water (such as a bath tub, wash bowl, sink, or laundry tub), in a wet basement, or near a swimming pool.

## Accessories

**WARNING: Avoid any potential for electric shock or fire. Do not use accessories with this product unless recommended by your cable service provider.**

Avoid any potential for electric shock or fire. Do not use accessories with this product unless recommended by your cable service provider.

## Service Warnings

### Servicing This Product

**WARNING: Avoid electric shock! Opening or removing the cover may expose you to dangerous voltages. This product contains no user-serviceable parts. Refer all servicing to qualified service personnel.**

Do not open the cover of this product. If you open the cover, your warranty will be void. Refer all servicing to qualified personnel only. Contact your cable service provider for instructions.

### Obtaining Service for Product Damage

For damage that requires service, unplug this product from the AC outlet. Then, contact your cable service provider or qualified service personnel to obtain service for the following conditions:

- If there is damage to the power-supply cord or plug
- If liquid enters this product
- If you expose this product to rain or water
- If you drop this product, a heavy object falls on this product, or damage occurs to the cover of this product
- If this product does not operate normally by following the operating instructions
- If this product exhibits a distinct change in performance

### Checking Product Safety

Upon completion of any service or repairs to this product, the service technician must perform safety checks to determine that this product is in proper operating condition.

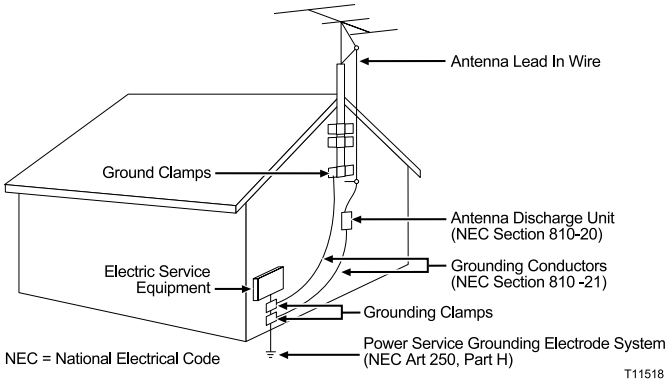
### Outdoor Grounding System

If this product connects to an outdoor antenna or cable system, be sure the antenna or cable system is grounded (earthed). This provides some protection against voltage surges and built-up static charges.

Article 810 of the National Electric Code (NEC) ANSI/NFPA No. 70-1990, provides the following information:

- Grounding of the mast and supporting structure
- Grounding the lead-in wire to an antenna discharge unit
- Size of the grounding conductors
- Location of the antenna-discharge unit
- Connection to grounding electrodes
- Requirements for the grounding electrodes (see the following antenna grounding diagram as recommended by NEC ANSI/ NFPA 70)

**Example Of Antenna Grounding**


Antenna Lead In Wire
Ground Clamps
Antenna Discharge Unit (NEC Section 810-20)
Grounding Conductors (NEC Section 810 -21)
Electric Service Equipment
Grounding Clamps
Power Service Grounding Electrode System (NEC Art 250, Part H)
NEC = National Electrical Code
T11518

### Lightning

For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges. Plugging this product into a surge protector may reduce the risk of damage.
**Note**: Unplugging this product for an extended period of time can result in loss of authorization. For reauthorization, contact your cable service provider.

### Power Lines

**WARNING: To avoid electric shock, do not locate an outside antenna system in the vicinity of overhead power lines or power circuits.**

Do not locate an outside antenna system in the vicinity of overhead power lines or power circuits. When installing an outside antenna system, take extreme care to keep from touching power lines or circuits, as contact might be fatal.

# Welcome!

The Explorer® 3250™ Digital Home Communications Terminal (3250) can receive and display analog and digital signals, as well as provide exceptional picture quality.

Through the 3250, you can access interactive services, such as video-on-demand and pay-per-view programs. Contact your cable service provider for information about these and other available services.

Use the instructions in this guide to install the 3250, to become familiar with the buttons on the front panel, and to access your cable services. Then, sit back and enjoy Explorer 3250 DHCT experience!

## Safety First

Before using the 3250, read the IMPORTANT SAFETY INSTRUCTIONS section of this guide.

## The Explorer eClub

The online Explorer eClub provides news and information about the 3250. You can access the Explorer eClub on the Internet at the following Web address:

www.scientificatlanta.com/explorerclub

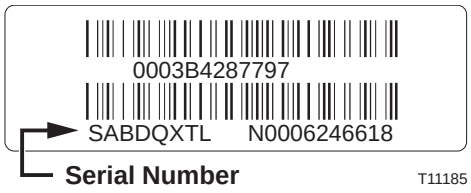
To join and access the online Explorer eClub, you must enter the model number of your set-top. The model number is located on the front panel of the 3250.

## Identify Your 3250

To find the serial number for your 3250, look on the back panel for a label that is similar to the example shown here. The serial number begins with SA and is located in the lower left corner of the bar code.

If the 3250 requires troubleshooting in the future, your cable service provider may ask for this serial number.

Use the space provided here to record the serial number:

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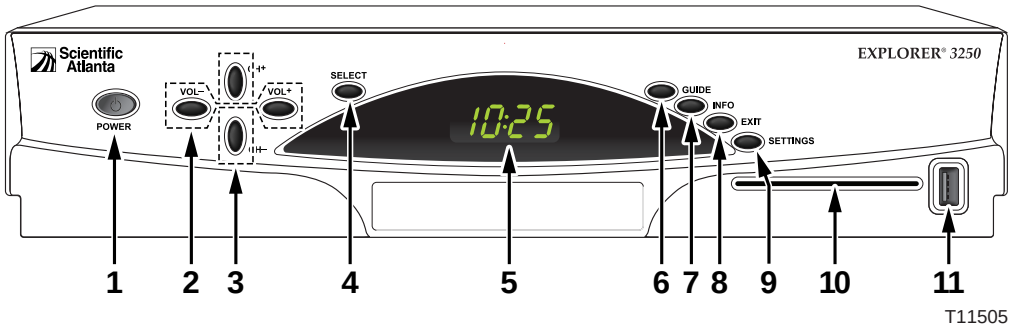
# What’s On the Front Panel?

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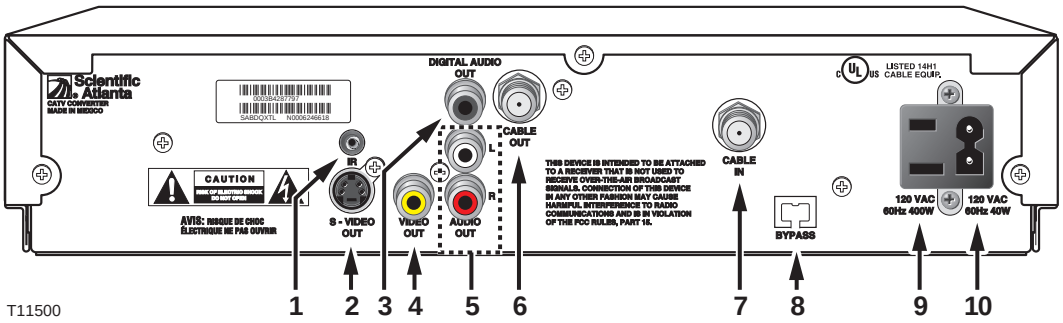
| | | |
|---|---|---|
| **1** | **Power** | Turns the 3250 on and off |
| **2** | **VOL + and VOL -** | Enables you to increase and decrease the volume |
| **3** | **CH + and CH -** | Enables you to scroll up and down through the channels |
| **4** | **Select** | Provides access to your on-screen selection |
| **5** | **LED Display** | Displays the selected channel number and time of day. The LED also displays the following:<br>• Message ( ✉ )<br>• Power ( ⏻ ) |
| **6** | **Guide** | Accesses on-screen services, such as the on-screen guide, video-on-demand, or pay-per-view |
| **7** | **Info** | Displays a description of the selected program. This button is available from the on-screen guide and while viewing a program |
| **8** | **Exit** | Exits menus, the on-screen guide, and program information |
| **9** | **Settings** | Accesses the Settings menu |
| **10** | **Smart Card*** | Allows smart card access |
| **11** | **USB Port*** | Connects to external equipment, such as a keyboard |

***** These features may not be available on all 3250 models.

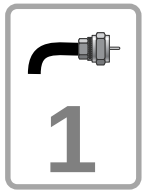
# What's On the Back Panel?




| | | |
|---|---|---|
| **1** | **IR** | This connection is reserved for future use |
| **2** | **S-Video Out** | Connect an S-Video cable to send an S-Video signal to your TV or VCR. This signal is standard definition but higher quality than other standard television connections |
| **3** | **Digital Audio Output** | Connect an RCA cable to send a digital audio signal to a surround-sound receiver or other digital audio device |
| **4** | **Video Out** | Connect to the video input of TV or VCR |
| **5** | **Audio Out (LEFT and RIGHT)** | Connect RCA cables to Audio Out to send analog audio signals (left and right) to a stereo receiver or TV with stereo outputs |
| **6** | **Cable Out** | Connect a coaxial cable to Cable Out to send analog audio and video signals. to a TV or VCR. These signals are SDTV video and stereo audio |
| **7** | **Cable In** | Connect the coaxial cable that delivers the signal from your cable service provider |
| **8** | **RF BYPASS** | Contact your cable service provider for more information |
| **9** | **AC Outlet** | Connect the AC power cord from another device, such as a TV |
| **10** | **AC Power Input** | Connect the power cord to deliver power to the 3250 |

# Connecting the 3250

To connect your 3250 to your entertainment devices, complete these steps.




Connect the coaxial cable that carries the signal from your cable service provider to the Cable In connector on the back panel of the 3250.

To connect your TV to the 3250, see the connection diagrams beginning on page 12. Select the configuration that best matches your entertainment devices.

Plug the 3250 and the TV into an AC power source.

**Important:** To protect the 3250 from power surge damage, ground (earth) your cable product to provide some protection against voltage surges and built-up static charges. To avoid these voltage surges that can be caused by lightning storms and power outages, plug the 3250 into a surge protector in order to reduce the risk of damage.

Do not turn on the 3250 or TV yet.

It may take several minutes for the 3250 to receive the latest software, programming, and service information. Wait until you see one of the following displays on the front panel of the 3250 that indicates that the update is complete:

- Current time
- Four dashes (- - - -)

**Note**: If four dashes are displayed, you must call your cable service provider to get the 3250 authorized.

To begin watching TV, turn the TV ON, and press POWER on the front of the set-top.

## Automatic Software Updates

Upon power-up, the TV screen may occasionally display a message that indicates the 3250 is automatically updating its software. Wait for the time to display on the front panel of your 3250 before continuing with the installation process. When the front panel displays the time, the update is complete.

# Connections for a Standard-Definition TV and VCR

When using the 3250 with an SDTV, you must make the following connections to view content. Check your TV's user guide for connection instructions.

Use *one* of the following connection combinations, but not both:

- Connect the CABLE OUT port from the set-top to the CABLE IN/ANT IN port on a TV or VCR.
- Connect the VIDEO OUT port and the L/R AUDIO OUT ports from the set-top to the VIDEO IN and L/R AUDIO IN ports on a TV or VCR.

**Note:** The S-Video connection is an *optional* connection. However, it is the preferred video connection if it is available on your TV. You must make a separate audio connection when using S-Video.

| **Required Connections to an SDTV** | | **3250 Connections** | **SDTV Connections** |
|---|---|---|---|
| **Video** | The Video Out connection provides a video connection to standard-definition TVs. | **VIDEO OUT** | **VIDEO IN** |
| **S-Video** | The S-Video Out connection provides the optimal video connection to standard-definition TVs. | **S-VIDEO OUT** | **S-VIDEO IN** |
| **Audio** | The left and right audio outputs provide stereo sound when connected to a stereo receiver or a TV with stereo sound. | **AUDIO OUT** | |
| **Cable Out** | The Cable Out connection provides both a video and an audio connection to an SDTV. | **CABLE OUT** | **CABLE IN/ ANT IN** |
| **Optional Connections** | | **3250 Connections** | **SDTV Connections** |
| **VCR** | The Cable Out connection provides both a video and an audio connection to the VCR. | **CABLE OUT** | **CABLE IN/ ANT IN** |
| **Home Theater** | The Digital Audio Out connection provides an excellent audio signal to a surround-sound receiver or other digital audio devices.<br>**Note:** Digital audio is only active on digital channels. | **DIGITAL AUDIO OUT** | **DIGITAL AUDIO IN** |

# Watch TV

## Access Services and Programs

Access cable services and programs by pressing the following keys on the remote control:

- **Guide**–Access the on-screen guide. The on-screen guide displays schedules of TV programs and other services available from your cable service provider, such as video-on-demand and pay-per-view programs.
- **Arrows**–Highlight a program in the schedule.
- **Info**–Display a specific program description (either from the on-screen guide or while viewing a program).
- **Select**–View a specific program in the guide.

# Performance Tips

If the 3250 does not perform as expected, the following tips may help. If you need further assistance, contact your cable service provider.

## No Picture

- Verify that the power to your TV is turned on.
- If the 3250 is plugged into a wall switch, verify the wall switch is in the ON position.

  **Note**: You should *avoid* plugging the 3250 into an outlet that is controlled by a wall switch.
- Verify that all cables are properly connected.
- If your system includes a VCR or stereo, verify that you have properly connected them to the 3250.
- Verify that your TV is connected to the proper TV input port.
- Verify that the TV is set to the proper input channel.

## No Color

- Verify that the current TV program is broadcast in color.
- Adjust the TV color controls.

## No Sound

- If your setup includes a stereo, verify that you have properly connected it to the 3250.
- Verify that the volume is turned up.
- Verify that the mute function is not engaged.

# Frequently Asked Questions

## Where are the connection diagrams?

The diagrams on the following pages show examples of typical connections for the 3250.

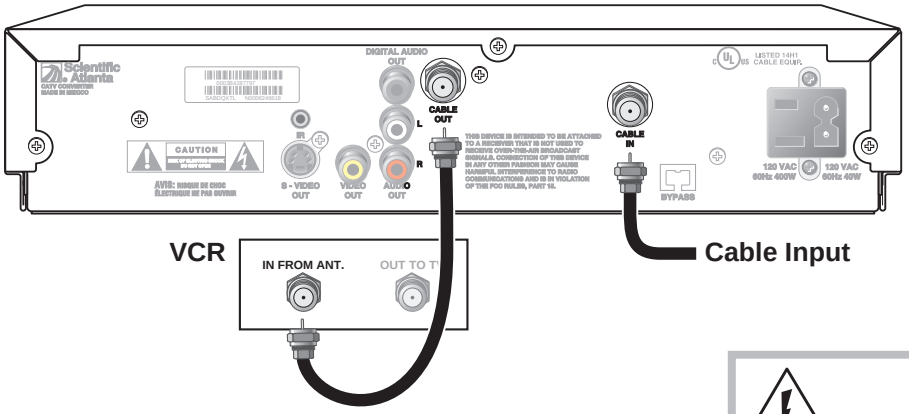
## What cables do I need?

Some of the cables shown in the diagrams may not be included with the 3250. The required cables are shown in the connection diagrams on the following pages.

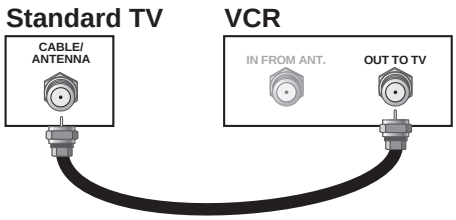
# Connecting the 3250 to a Standard TV and Standard VCR

**1** Connect the 3250 to the VCR.

**Explorer 3250 DHCT**




**2** Connect the VCR to the TV.




**WARNING:**
**Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the 3250.**

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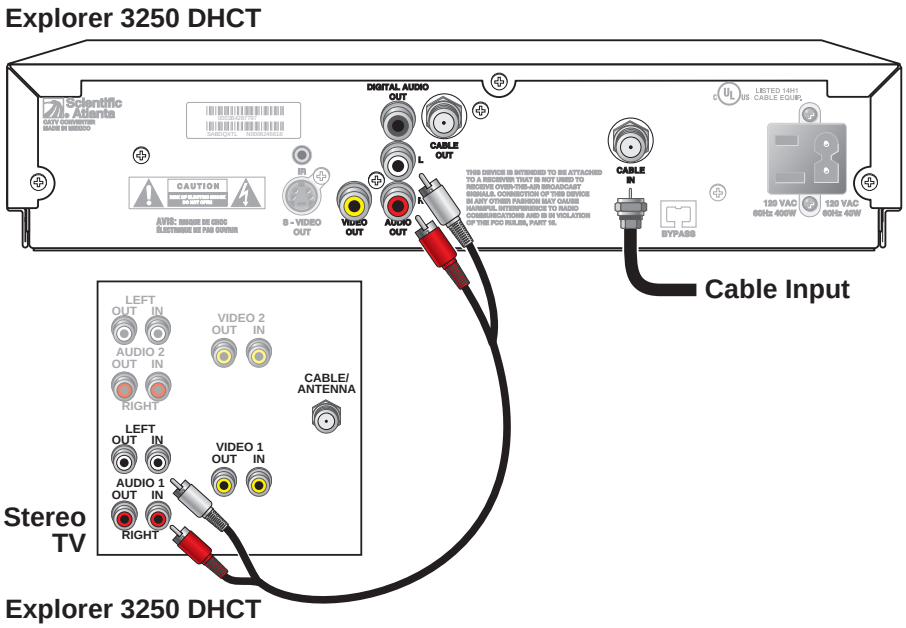
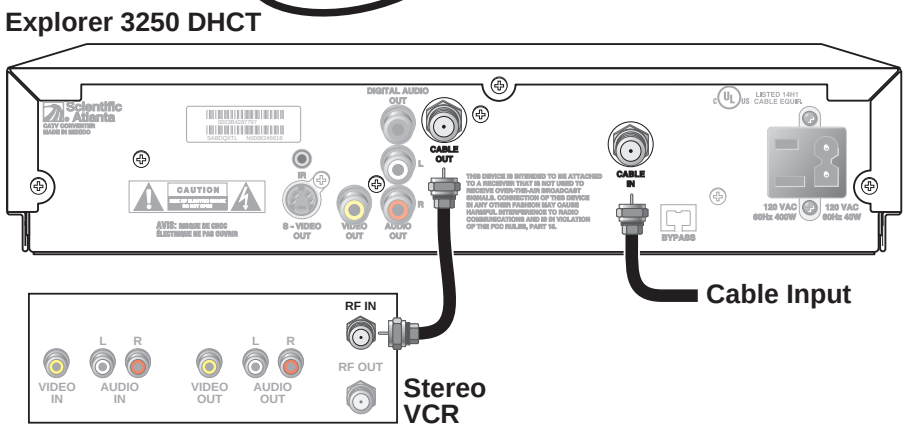
# Connecting the 3250 to a Stereo TV and Stereo VCR

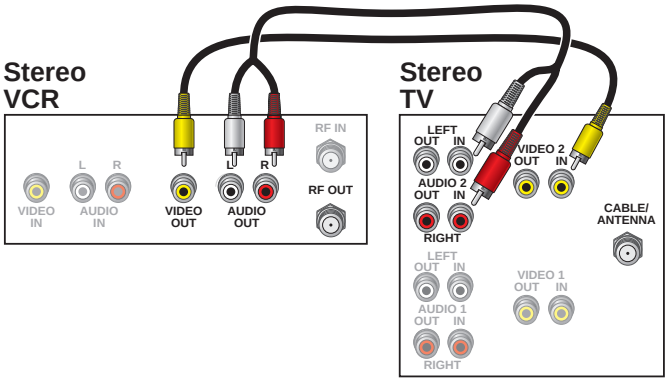
**1** Connect the 3250 to the stereo TV.




**2** Connect the 3250 to the stereo VCR.




**3** Connect the stereo TV to the stereo VCR.




**WARNING:**
**Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the 3250.**

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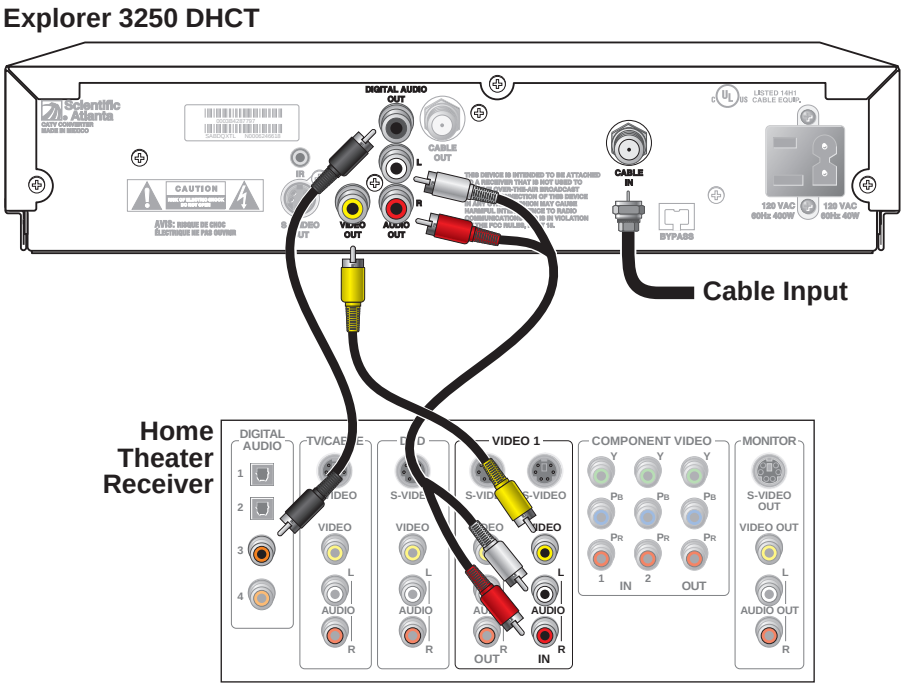
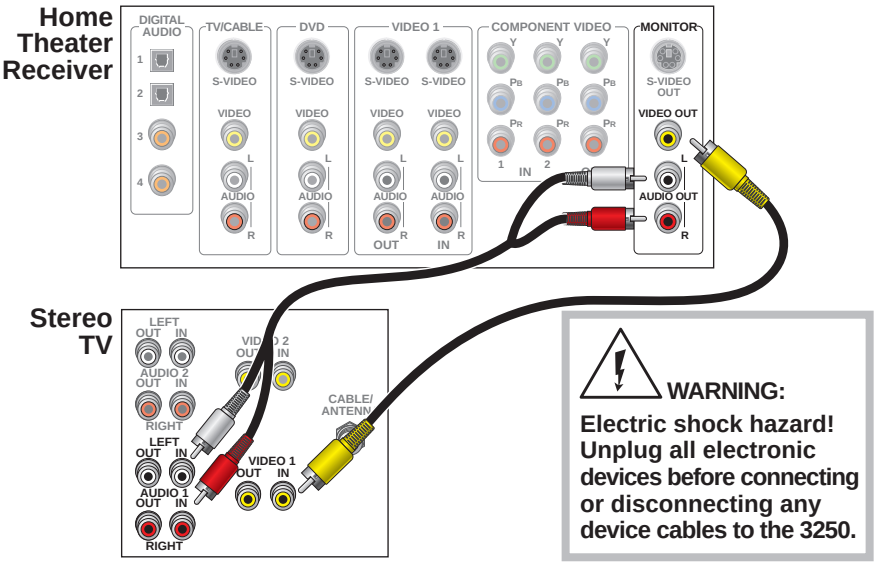
# Connecting the 3250 to a Home Theater Receiver

**1** Connect the 3250 to the Home Theater Receiver.




**2** Connect the Home Theater Receiver to the stereo TV.




**WARNING:**
**Electric shock hazard! Unplug all electronic devices before connecting or disconnecting any device cables to the 3250.**

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## Setting Up Digital Audio

To set up digital audio, connect an RCA cable from the DIGITAL AUDIO OUT on the 3250 to the DIGITAL AUDIO IN on your TV (if equipped) or to a stereo receiver.

**Notes:**

- Digital audio is only available on digital channels.
- Depending on the capabilities of your home theater system, you may need to manually switch from digital to analog inputs.

# Compliance Information

## United States FCC Compliance

This equipment has been tested and found to comply with the applicable limits of Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or TV reception, which can be determined by turning the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult your cable company or an experienced radio/TV technician for help

Any changes or modifications not expressly approved by Scientific-Atlanta could void the user's authority to operate the equipment.

**Important:** The information shown in the FCC Declaration of Conformity paragraph below is a requirement of the FCC and is intended to supply you with information regarding the FCC approval of this device. *The phone numbers listed are for FCC-related questions only and not intended for questions regarding the connection or operation for this device. Please contact your cable service provider for any questions you may have regarding the operation or installation of this device.*

FCC Declaration of Conformity

This device complies with *Part 15 of the FCC Rules*. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

EXPLORER® 3250™
Digital Home Communications Terminal:
Model 3250
Manufactured by: Scientific-Atlanta, Inc.;
5030 Sugarloaf Parkway;
Lawrenceville, Georgia 30044; USA
Telephone **770-236-1077**

## Canada EMI Regulation

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la class B est conforme à la norme NMB-003 du Canada.

## Software and Firmware Use

Scientific-Atlanta, Inc. owns copyrights to the software included in your set-top and furnishes the software to your cable service provider under a license agreement. You may only use or copy this software in accordance with the terms of your cable service provider.

Scientific-Atlanta, Inc. owns copyrights to the firmware in this equipment. You may only use the firmware in the equipment in which it is provided. Any reproduction or distribution of this firmware, or any portion of it, without the express written consent of Scientific-Atlanta, Inc. is prohibited.

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## Disclaimer

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